

# Solar Playbook: Making Solar Work for Your Locality

March 16, 2021

**Adam Wells**

Regional Director of Community and Economic Development, Appalachian Voices

**Ed Gilliland,**

Senior Director, The Solar Foundation

**Nick Kasza,**

Program Manager, Sustainability, National League of Cities

**Elizabeth Marshall, Senior Project Coordinator**

Virginia Solar Initiative, Weldon Cooper Center for Public Service at UVA



# Agenda

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- **3:00 Welcome and Overview:** Adam Wells, Appalachian Voices
  - Welcome
  - Why Solar Playbook and why Southwest Virginia?
- **3:10 Playbook overview:** Ed Gilliland, The Solar Foundation
  - Overview of the playbook and how to use it
- **3:20 SolSmart support:** Elizabeth Marshal, UVA and Nick Kasza, NLC
  - Ongoing support for localities and how to access
- **3:30 Questions and discussion**
- **3:40 Adjourn**



# Acknowledgment and Disclaimer

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# Collaboration



# Solar Workgroup Co-Conveners and Planning Team Members

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Appalachian  
Voices



The Nature  
Conservancy



Southern  
Environmental  
Law Center



[www.swvasolar.org](http://www.swvasolar.org)

[www.solsmart.org](http://www.solsmart.org)



**SWVA**

**2016  
ECONOMIC  
FORUM**

**DISCOVER  
CONNECT  
IGNITE**

**MAY  
12**

# Pursuing a local solar industry since 2016..



# Solar Workgroup of SWVA Mission and Vision



**Vision:** Southwest Virginia is a solar leader in the Commonwealth and Central Appalachia, building on the region's proud history as an energy leader, working to realize the economic, environmental, and resiliency benefits of solar energy markets for all SWVA community members.

**Mission:** The Solar Workgroup of Southwest Virginia is developing a locally rooted solar industry as a regional economic and social catalyst, creating jobs and energy savings, as well as attracting renewable energy investments and new business opportunities to SWVA.



# Solar Workgroup Goals

- 1 Identify and develop sites that are ideal for solar development, especially solar “ambassador” projects.
- 2 Grow workforce development and entrepreneurship opportunities to advance solar projects and maximize local benefits.
- 3 Expand education and outreach in communities and with local leaders around solar benefits and opportunities.
- 4 Promote policy changes that will help grow the solar industry in Southwest Virginia.



# Why: Solar Playbook for SWVA?

- How can the region maximize investment and local benefits from large scale solar development?
- Significant inventory of previously mined land
- Need for technical assistance to streamline development :
  - Step-by-step guide for localities
  - Up to date information about policy
  - Specific to Southwest Virginia





# How: Solar Playbook for SWVA

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- Foundation of Solar Workgroup; strong locality engagement
- Southwest Virginia SolSmart cohort
- GO Virginia: Enhanced Capacity Building grant
- The Solar Foundation/ SolSmart/ DOE match
- Virginia SolSmart program: UVA Weldon Cooper Center, DMME, National League of Cities



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The background of the slide is a photograph showing a rooftop covered in solar panels in the foreground. In the distance, a city skyline with various skyscrapers is visible across a body of water. Two small, rusted metal structures are on the roof.

***Large Scale Solar Development: A Playbook for Southwest Virginia***  
**Ed Gilliland, Senior Director**  
**The Solar Foundation**



## **LARGE-SCALE SOLAR DEVELOPMENT**

A PLAYBOOK FOR SOUTHWEST VIRGINIA

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Available at:

[swvasolar.org/swva-solar-playbook/](http://swvasolar.org/swva-solar-playbook/)

# The Solar Development Opportunity

- U.S.
  - 70% decline in costs since 2010
  - 40% of all new electric capacity
  - 250,000 jobs
- Virginia - 2019
  - 893 MW of solar energy
  - 255 solar companies
  - 4,500 solar jobs
- Virginia Clean Economy Act - 2020
  - APCo to be carbon free
    - 30% by 2030
    - 100% by 2050

# Large-Scale Solar

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- Utility-Scale
  - > 1 MW
  - Ground mounted
  - Feed electricity directly into the grid
- Nonresidential
  - Rooftop or ground mounted
  - Provides electricity to facilities
    - Warehouse, data center
    - Municipal building, school
  - Excess electricity sent to grid

# Benefits of Solar Development in Southwest VA



- Jobs
- Appeal to other businesses
- Clean
- Grid resilience
- Local tax revenue
  - 75 MWac project could generate \$105,000 per year in tax revenue



# The Solar Development Process

1. Market screening
2. Site selection
3. Project studies and design
4. Regulatory approval
5. Interconnection approval
6. Off-taker identification
7. Financing
8. Construction
9. Operations and maintenance



# Local and State Context: The Key Players

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- Internal staff and elected officials
- State agencies
  - Virginia Department of Mines, Minerals, and Energy (DMME)
  - The Virginia Department of Environmental Quality (DEQ)
- Electric Utilities
- Regional Transmission Organizations
- Corporate Off-takers
- Educational institutions and workforce development boards
- Solar companies
- Local businesses
- Property owners
- General public

# Local and State Context: Regulatory Approval

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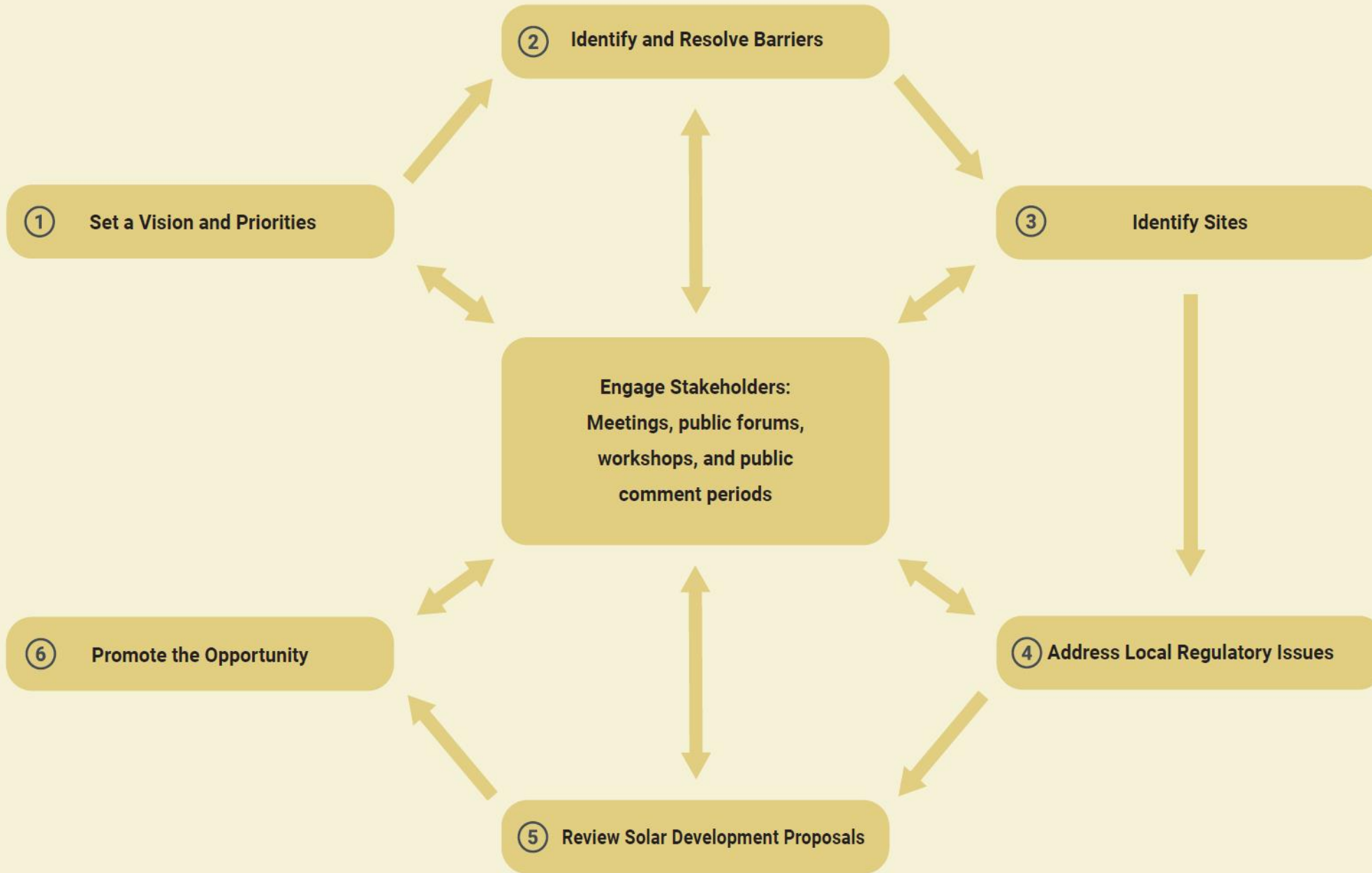
- Local Planning and Zoning Considerations
  - Comprehensive Plan
  - Zoning codes
  - Site plan review
  - Opportunity zones
- State Approval process
  - Permit by rule
- Other
  - Pollinator friendly solar

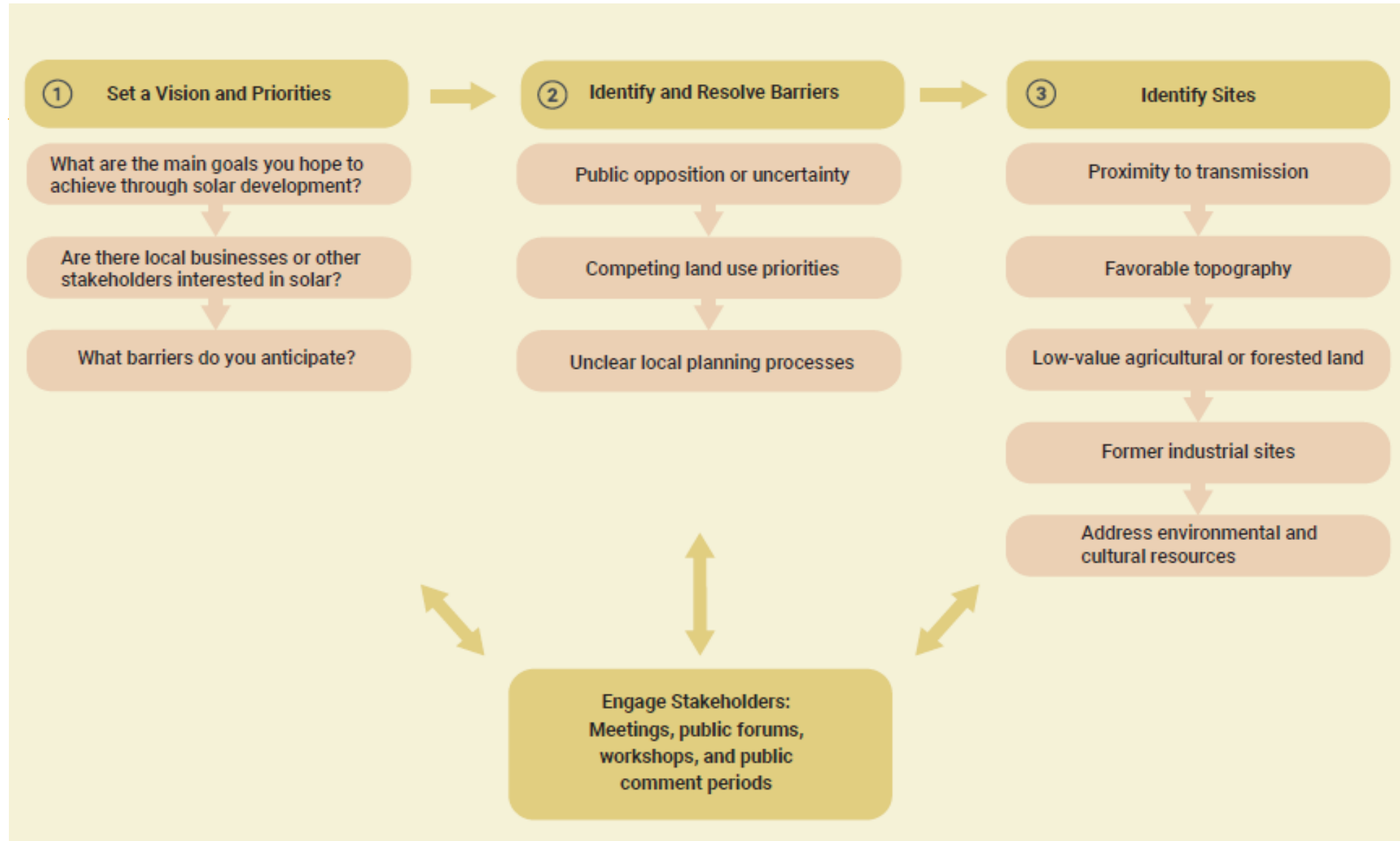
# Other Development Considerations

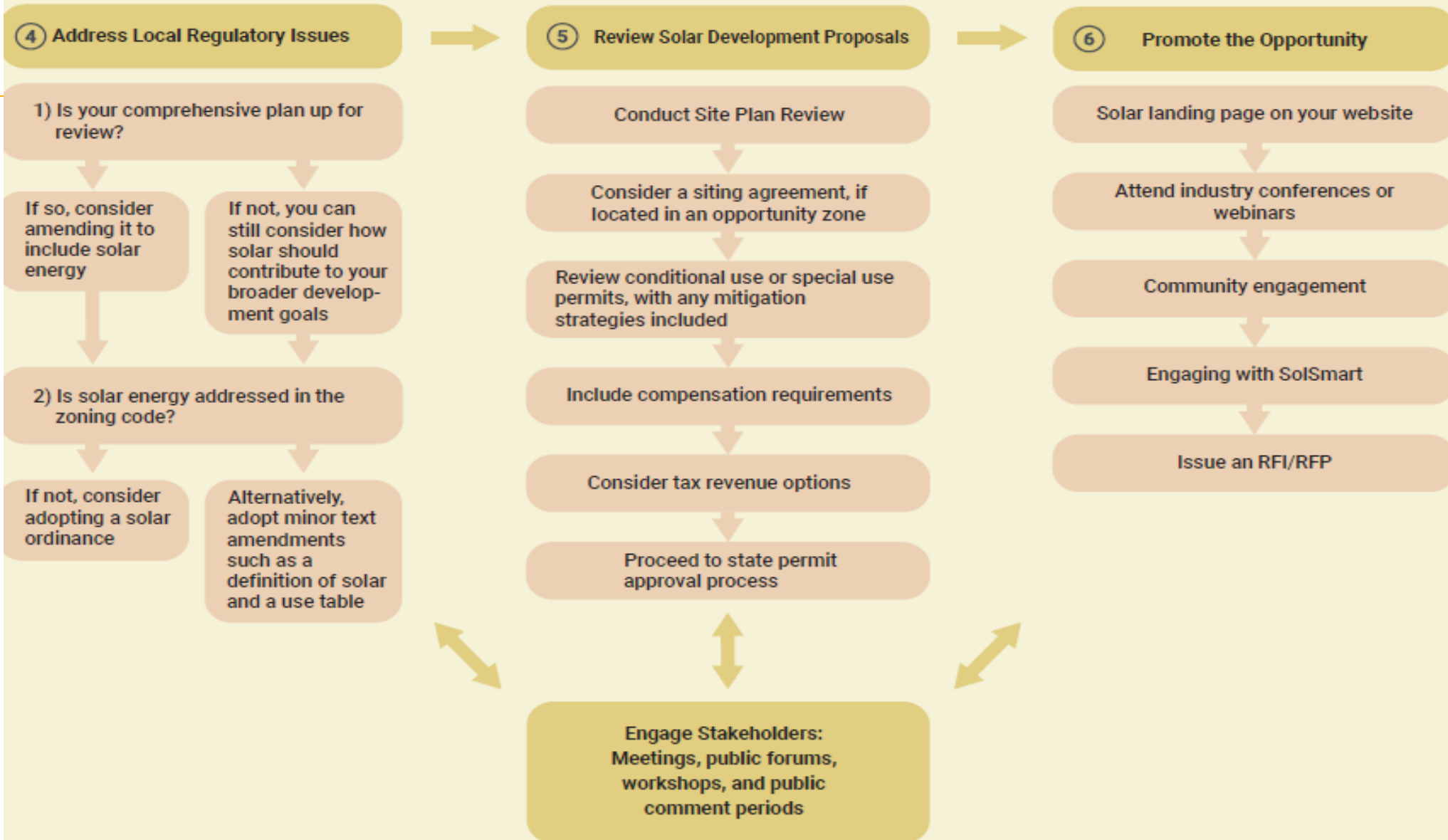
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- Power Purchase Agreements and Net Metering
- PACE Financing
- Shared (Community) Solar
- Tax Revenue Options and Incentives
- Solar on Brownfields and Previously Mined Lands

# Steps for Local Governments to Facilitate Large-Scale Solar Development







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## **SolSmart Technical Assistance in Virginia**

*Nick Kasza, Program Manager, Sustainability*

*National League of Cities*

*Elizabeth Marshall, Senior Project Coordinator*

*Virginia Solar Initiative, Weldon Cooper Center for Public Service at UVA*

# SolSmart in Southwest Virginia

- Eight communities earned designation in 2019
- Communities expressed need for comprehensive guidance= Solar Playbook
- “SolSmart 2.0” was a collaborative effort led by Solar Workgroup of Southwest Virginia, Appalachian Voices, and The Solar Foundation
- Regional support and coordination made it possible to obtain funding



Eight SW VA communities  
receiving SolSmart designation (2019)  
*Photo credit: Chelsea Barnes, Appalachian Voices*

# SolSmart Technical Assistance

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- SolSmart is a national designation program to recognize localities for encouraging solar energy growth.
- Led by The Solar Foundation, International City/County Management Association, and funded by US Department of Energy Solar Technologies Office
- DMME & UVA offering no-cost technical assistance to localities for SolSmart designation
- Available across the Commonwealth
- Recent community designations include the City of Williamsburg (Silver) and Pulaski County (Gold)
- Localities may “Request a Consultations”: visit DMME’s SolSmart page: <https://dmme.virginia.gov/de/SolSmart.shtml>



# Designation Criteria and Scorecard



- ☐ Complete 3 prerequisites
- ☐ 20 points in Permitting
- ☐ 20 points in Planning/Zoning
- ☐ 60 total points



- ☐ SolSmart Bronze
- ☐ Complete 3 prerequisites
- ☐ 100 total points



- ☐ SolSmart Silver
- ☐ Complete 2 prerequisites
- ☐ 200 total points

- The SolSmart Designation Criteria is comprised of 75 unique credits in 5 categories that aim to improve local solar markets
  - Each credit has a corresponding point value ranging from 5 to 20
- Local governments are awarded points based on credits they have completed to make their local processes more solar-friendly
- Credits are verified by the Designation Administrator through a review of online information and documents provided by the community
- Communities that complete the required level of prerequisites and points are awarded SolSmart designation
- The SolSmart scorecard is used to baseline a local government's current solar processes and identify areas for technical assistance in 5 categories
- SolSmart can provide technical assistance for each of the 75 credits

# Level Up Initiative

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- Encourage localities that have already been designated to take their designation to the next level and/or earn a Special Recognition
- Encourage regions to coordinate and work together
  - Planning District Commission/Regional Designations
  - Potential to unlock additional resources



# Leveraging SolSmart for Coordinated Support



- Statewide and regional offerings, such as Best Practices in Permitting and Inspections training webinar
- Technical Resources, such as the “[SolTax](https://solar-tax-webapp.herokuapp.com/)” analysis tool which localities can use to run hypothetical scenarios to help inform which tax option is right for their locality
  - <https://solar-tax-webapp.herokuapp.com/>
- Upcoming Virginia Solar Survey, which will provide insight into what resources and technical assistance is needed
- We will continue to develop and offer resources and support



# Please Reach Out!

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The Virginia SolSmart Advisor team is available anytime to assist with technical, process, or policy related questions.

The Solar Playbook is a great tool to help communities benefit from the clean economy transition, and there are many other resources we can offer!

We are committed to listening to the need, responding with resources, and developing assistance as needed.

We look forward to working with you!



A photograph of a worker in a grey shirt and black cap installing solar panels on a brown shingled roof. The worker is using a tool to secure a panel. The background shows a blue sky with wispy clouds and green trees. The image is overlaid with a semi-transparent white box containing text.

# Thank you for attending

**Elizabeth Marshall**  
Energy Transition Initiative  
Weldon Cooper Center for Public Service at UVA  
[emm2t@virginia.edu](mailto:emm2t@virginia.edu)

**Nick Kasza**  
National League of Cities  
[kasza@nlc.org](mailto:kasza@nlc.org)